

Project Name/Title: NOAA/UNH Joint Ocean Observing Technology Center

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Recipient Institution: University of New Hampshire

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Summary:

The Joint Center was established to develop and demonstrate new ocean observing technologies. The Center focuses on the synergistic use of data from existing land, atmosphere and ocean observing systems and builds models that predict coastal and ocean environmental conditions. Through innovative partnerships, the Center is working to identify technological gaps and to find cost-effective solutions to close them. Prototype products developed and demonstrated by the Center will be transitioned to regional and national ocean observing networks and to operational agencies.

Making a difference

- Developing a new model that uses buoy and satellite data to provide high spatial resolution forecasts of weather and sea conditions over the Gulf of Maine.
- Building a unique atmospheric observatory on Appledore Island to provide estimates of visibility and aerosol properties over the Gulf of Maine to improve the accuracy and utility of satellite remote sensing information.
- Developing and testing new sensors and buoy systems to improve data available to monitor the health of key chemical, physical, and biological properties in the coastal waters of New Hampshire.

Plans for next year

- Continue testing new sensors and subsystems for future deployment on buoys or profiling platforms in the Gulf of Maine.
- Improve ocean color satellite products through the development of better atmospheric correction algorithms using in situ measurements at models.
- Extend the marine weather forecast model output fields back in time for several decades by using historical records of input data as a highly valuable resource for climate studies..
- Provide estimates of the freshwater and nutrient flux from rivers entering the Gulf of Maine.